SUMMARY

The Child as Composer;
Music Composition as Social-Cultural Activity in the Elementary Classroom

General introduction

This doctoral dissertation reports on a research project consisting of a number of studies into the impact of music and music education on the functioning and development of elementary school students. The studies reported in this dissertation are the result of a process that started in 2006 with the conference: ‘Harmonie in Gedrag. Over de maatschappelijke en pedagogische betekenis van muziek’ ['Harmony in Behavior. On the social and pedagogical significance of music'], held at The Hague University for Applied Sciences and organized by the research group Youth and Development.

One of the outcomes of the ‘Harmony in Behavior’ conference was that, although in a number of other countries studies have been conducted on the social and pedagogical significance of music in elementary education, research on music education in elementary school is scarce in the Netherlands. Both educators and scientists indicated that scientific research on music education in the Netherlands is necessary to improve current practices in (elementary) schools, preschools and specialized music schools. A second outcome of the conference was the awareness of music reproduction as the dominant activity in music education practices. Opportunities for students to produce music (to compose and/or improvise music) are scarcely practiced in schools, while research suggests that productive approaches can have more impact on music learning and engagement in music education than reproductive ones.

Boosted by the outcomes of the conference, the current research project ‘The Child as Composer; Music Composition as Social-Cultural Activity in the Elementary Classroom’ has been started. With this research project, the author wants to contribute to the body of knowledge regarding the impact of music and music education on functioning and development of elementary school students, with an emphasis on the impact of music composition as a classroom activity.

In this doctoral dissertation, five studies are presented in chapters 2 to 6 respectively. The following general research questions are addressed in this doctoral dissertation: What are the effects of music education on social, emotional, cognitive and motor functioning? How can musical activities for children be conceptualized as playful activities that establish optimal conditions for (musical) learning outcomes? and What are the effects of music composition as a classroom activity on engagement in music education and on academic and musical achievement?
The impact of music on child functioning

For a long time, music educators and educational scientists have suggested that music, either in the form of music education, music practice, or exposure to music, can have a significant impact on school achievement, school attendance rates and students’ conduct, both in elementary and secondary education. Understandably, musicians and music educators point to studies like these to underpin the importance of music education. Music education and exposure to music by listening or active music making could make children smarter and have a positive influence on children’s social-emotional skills, motor development and even improve their chance for success in society. However strong the rhetorical power of statements and claims in favor of music (education) may be, the question that remains to be answered is: Can statements be substantiated with evidence acquired through scientific research conducted in accordance with quality criteria for such research? In other words: “What are the empirically demonstrated effects of music education on social, emotional, cognitive and motor functioning of children?” In the second chapter of this doctoral dissertation, the available scientific evidence for the effects of music exposure and music education programs on functioning of children and youth is reviewed.

Twenty-one studies published in peer-reviewed journals during the period 1995–2011 that met the inclusion criteria were identified. Eighteen of these studies focused on cognitive functioning. All of them, with three exceptions, reported positive or moderate positive effects. All reviewed studies on social-emotional and motor functioning showed positive effects of music education. It was concluded that exposure to music and music education can have a positive influence on child functioning. However, given the diversity in research design among the different studies, the final judgment on how robust these effects are and how they can be explained is still lacking. Any conclusions regarding robust effects of music exposure and education on cognitive, social-emotional and motor development are premature. This does not mean that no such effects exist, but the present state of research has not yet been able to identify such effects in a reliable, valid and sustainable manner. (Quasi-)experimental studies need to be conducted, obeying the standards for scientific research. Only then can undeserved claims be refuted and the surplus value of music education be demonstrated.

In order to contribute to the scarce body of knowledge regarding the problem mentioned above, the following research question has been articulated: “How can musical activities for children be conceptualized as playful activities that establish optimal conditions for (musical) learning outcomes?” A broad approach has been chosen to answer this research question, including both theoretical and empirical studies. As for the empirical part, a mixed method approach is used. Both qualitative and quantitative data have been collected in response to the general research question described above. Both qualitative (study 5: ‘Noa, a 10-year-old composer’) and quantitative data (study 4: ‘The effects of music composition as a classroom activity’, and study 5: ‘Noa, a 10-year-old composer’) have been analyzed following pervasive and rigorous procedures for qualitative and quantitative methods. Data have been triangulated to study the child as composer. Studies 2 and 3 (chapters 3 and 4) are theoretical studies on music play and music composition to construct a theoretical framework for the empirical studies 4 and 5 as described in chapters 5 and 6.
Playing music.
A perspective on music education using the Cultural-Historical Activity Theory of learning and development.

Music education in elementary schools is traditionally seen as a way of introducing young children into their cultural community’s music by singing songs, and listening to popular and classical music. Over the years, there have been advances that have broadened children’s experiences with music by introducing music and movement, and supporting active music listening and the playing of instruments, including reading musical scores. Despite these advances, mainstream music education in the Netherlands has remained a school-based enterprise of a mainly reproductive nature. There is no doubt that this approach will succeed in revealing and encouraging talents, but for the general student population, music education today is not very successful in raising the students’ level of musical development beyond the point of maturation and incidental moments of development based on experiential learning in everyday practices.

Many school subjects have been the focus of innovation by making the step from a reproductive approach to a more productive one, in which young children are actively involved in the construction of the objects (subject matters) that are relevant in their respective disciplines. Although similar steps towards productive music engagement have been proposed and taken in music education over the past decade by many music teachers, there are still important steps to be taken to truly innovate in music teaching in elementary education. The aim of the third chapter of this dissertation is to develop an argument for a play-based curriculum in music education.

A quick overview of the history of the concept of play illustrates the wide diversity of ideas about the value of play and the lack of a clear definition of play. Many teachers and academics have nevertheless picked up the notion of play as a basis for the innovation of classroom practices and have implemented it as context for children’s meaningful learning.

Looking specifically at music, music is inherently considered a playful activity, as is expressed in many languages. People play music, or play an instrument. One plays the drums, or can play in an ensemble. Are we just talking about completely different meanings of the verb ‘to play’ in these different utterances? Or is there a deeper connection with a psychological activity to which this verb refers, comparable to the referent of utterances regarding playful activities in which (young) children purposelessly enjoy themselves and learn?

This study explored the possibility of conceiving musical activity as play and particularly focused on the question: “How can musical activities with children be conceptualized as playful activities that establish optimal conditions for (musical) learning outcomes?” From the perspective of the Cultural-Historical Activity Theory, one could answer this question in the following way: play can be conceived of as a way of carrying out human activities. All human cultural activities can be accomplished in more strict and mechanistic ways or in more free and joyful ways, and the same can be said of musical activities. Musical play is a mode of activity defined by the three parameters of the activity format: rules, degrees of freedom, and involvement.
Traditional forms of music education that focus on training for strictly rule-regulated performance can be seen as essentially reproductive forms of music education. Educational activities, on the other hand, can be considered productive and playful when they succeed in engaging students in musical activities that relate to their interests, building on rules that can be acknowledged by the students, and allowing the students freedom in interpreting the rules and the forms of performance. Like in many other subject matter domains, music education can take the step from a reproductive approach to a more productive one. Although there are many musical activities that allow for playful versions, it is argued here that music composition activities in particular follow the play format of activity and offer children opportunities to create their own music.

Music composition can be offered as a playful activity in elementary schools. Children are able and want to participate in such playful activities and actively appropriate musical skills and knowledge while creating their own music composition(s). However, they need assistance to improve their ability to participate in cultural practices such as music composition.

**Music composition in the music curriculum**

In contrast to other arts subjects, music education focuses foremost on the reproduction of music, rather than the production of their own pieces of art. In chapter 4, different theoretical fields have been brought together in order to develop an approach to music education that concentrates on ‘composing’ as a core activity, and that is relevant for elementary school teachers. This chapter is a theoretical study, in which the possibilities to regard children as composers are explored. The following three research questions are inquired: 1. “What is music composition?” 2. “To what extent does music composition require the mastery of music notation and creativity?” and 3. “What are the pedagogical implications of music composition as a regular classroom activity?”

It is concluded that the drive for students’ creative involvement in cultural practices can be found in the desire of children to be part of and to participate in the world of adults, according to a basic assumption of the Cultural-Historical Activity Theory. This is their incentive for development and learning. Play offers people the opportunity to take part in practices in their own way, due to the essential degrees of freedom in play. This activity format of play offers people of all ages the opportunity to engage in imaginative situations and intense experience. On the basis of these theoretical assumptions, we construed ‘composing’ as a playful cultural practice following some musical rules, allowing the participants some degrees of freedom and raising high levels of personal involvement. Through playful participation in a composing practice with experts, newcomers can learn and improve the rules and appropriate relevant knowledge and skills. From this point of view, the composing process is conceived as a planned and deliberate realization of a creative process with a new piece of music as the outcome (Campbell & Scott-Kassner, 2006). Pedagogical implications of music composition as a regular playful classroom activity are that the participating and guiding expert (teacher) should never impair the quality of the activity as play, i.e. the expert should abide by the characteristics of the activity format of play – rules, degrees of freedom, and intense experience.
would perform better with regard to academic skills than the control group. The students of the experimental group performed better with regard to some academic skills than their counterparts in the control group; at least, such an effect was found for reading comprehension. It remains uncertain what this difference should be attributed to. One possibility is that students in the experimental group made extensive use of symbolic notation and were more focused on the text-like dimensions of their compositions. A transfer to reading comprehension could have taken place. Fourth, although both groups showed progress with regard to singing, no significant difference between both groups was found in this respect, despite the fact that the control group sang much more than the experimental group. This might indicate, since relevant variables here are melody and rhythm performance as well as expression and comprehensibility, that these can apparently also be improved by non-singing music activities.

In conclusion, this study highlights the surplus value on several dimensions of composition as a classroom activity, such as on engagement and on academic abilities like reading comprehension. The study has shown that music composition is feasible and useful in elementary schools. Students are able to compose music in the same way as they are able to sing songs, play instruments and perform dances. It is concluded that productive music education is evidently more engaging for students than reproductive forms of music education. However, productive music education requires teachers to have different pedagogical, didactical, organizational, and reflective skills than one would have for reproductive music education. For example, using forms of cooperative learning and differentiated instruction. This has consequences for teacher education.

The value of these findings are substantiated by the fact that the present study meets scientific standards (Slavin, 2008) with regard to: (1) randomized assignment: classes were randomly assigned to the experimental and control group; (2) sample size: 131 students participated in this study; and (3) duration: the study lasted 10 months.

Nevertheless, there is a number of limitations to this study. First of all, randomization was only at the class level and not at the level of students or school. Secondly, the same teacher carried out both interventions. A possible proclivity towards one or the other approach to music education cannot be excluded as having affected the outcomes. Thirdly, it also cannot be excluded that differences between both conditions had to do with factors other than the presence or absence of composition as an activity. For example, music composition may require forms of interaction between teacher and students that are different from reproductive music activities. For example, in music composition activities, students get more feedback both individually and in small groups than in music reproduction activities where the class is addressed as a whole.

Notwithstanding these possible limitations, the findings with regard to engagement and certain academic skills, such as reading comprehension skills as a result of music education through composition, are intriguing enough to warrant further research and reconsideration of the content of music education in other elementary school settings and with other teachers.
Noa, a 10-year-old composer: A single-subject case study

The present case study aims to contribute to the knowledge of music composition as a meaningful activity in music education. An extensive amount of literature on music composition is available; however, music composition as a regular classroom activity is rarely seen in elementary schools. The effects of closely guided music composition, in which extra attention is paid to the revision of music compositions, on engagement in music education and music achievement in a single-subject situation were studied using a three-step model for music composition based on the Cultural-Historical Activity Theory.

In conclusion, this chapter shows that music composition, even when it is an increasingly complex activity, is an activity accessible to children in the elementary school age. Music composition organized according to the activity format of play offers children the chance to actively produce music, instead of reproducing music, in activities characterized by determinants that form the play format: rules, degrees of freedom, and engagement.

Despite the increasingly demanding activities, Noa showed to be highly engaged in music education, specifically in music composition activities formatted as play. In this guided process she also showed an increase in music skills and knowledge. This made Noa feel proud of her own work. She was highly motivated and articulated the wish to come again the following week to make a new music composition. For her teacher, it was challenging and rewarding to offer Noa assistance to make the best possible progression. Comparing the outcomes of this single-subject case study with the outcomes of the comparative classroom study (Hogenes, Van Oers, Diekstra & Sklad, 2015) in which music composition in classroom situations was studied, remarkable differences could be found. The same three-step model was used in both studies. Although the music compositions in the classroom study were musically interesting, Noa’s compositions were much more complex and, as judged by her teacher, richer concerning musical ideas, structure and notation. It was more difficult to revise music compositions with a class as a whole, while in a one-on-one situation the teacher is easily able to give impulses to the process that lead to significant improvement of the music compositions. In a classroom situation it would be very difficult to make a composition like Noa’s ‘Vocalise’. Not only was the lesson plan highly influenced by Noa in her role of composer, but she also required a lot of feedback to help with the composition of the last few bars of the ‘Pentatonic Vocalise’. It would be impossible to give the same amount of time and attention to individuals or small groups of children in a classroom situation.

Music composition in schools can be seen as an activity that takes place as a collaborative and reciprocal activity. Noa learned from her teacher, but also brought experiences and contemporary knowledge to the music composition sessions. The teacher was the more knowledgeable partner in the teaching/learning process. He, however, also learned from Noa, for example how to scaffold the revision process, and adjusted his lesson plans based on the creativity she showed during the sessions.

Based on these observations, it is concluded that music composition can be expanded into elementary school age under appropriate guidance. The single-subject study demonstrated that complex composition activities in which the student is allowed to follow personal interests
and receives action-focused guidance, leads to intense engagement in music education and high music achievements (in terms of musical products and skills). In this process, 10-year-old Noa has shown herself to be a real composer.

It can also be concluded from this case study that conducting music composition activities as a regular classroom activity may be claimed to be feasible. Music composition is an activity accessible to elementary school children. The used music composition model, implemented in a play format, offers regular classroom teachers the many possibilities to guide music composition in elementary schools. However, to offer all children the assistance they need, working in small groups is suggested.

The Child as Composer

The results of this doctoral dissertation have some important implications for music education in elementary schools and (music) teacher education. Music as a school subject has been marginalized over the last few decades. However, the current ‘Impuls Muziekonderwijs’ [Impuls Music Education], a (financial) impulse of the Ministry of Education to achieve a sustainable embedding of high-quality music education in primary education by promoting professional development of teachers, structurally teaching music during school hours and the formation of connections between in-school and extra-curricular music education, offers new opportunities to bring music and music education back to all elementary schools in the Netherlands.

This dissertation shows that music education organized according to an activity format of play leads to increasing levels of engagement in music activities in elementary schools. It offers a pedagogical model consistent with this play-based approach as a three-step-model, in which step 1 is the creation of a common base, step 2 is creating ideas and writing the composition, and step 3 is the presentation and publication.

Using the developed model for music composition, every classroom teacher should be able to work with students on music composition. It offers classroom teachers tools to motivate, stimulate, and facilitate students in working on challenging assignments, which offer students insight into musical concepts and help develop musical skills. The presumed potential of this pedagogical model is that it can enhance meaningful musical learning in elementary school students.

In order to facilitate (new) teachers with competencies to teach music in a productive way, i.e. to be able to teach music composition and improvisation, these activities should be part of the core curriculum of (music) teacher education. Teacher education departments [pabo’s] and music in education departments [Docent Muziek] of conservatories play a major role in the reformation of music education. If researchers and educators will collaborate on the improvement of music education, music may establish a firm, sustainable basis in elementary school curricula.